

Dan Wietecha, City Administrator City of Evansville 31 S. Madison Street Evansville, WI 53536

RE: Design Engineering for Dredging Lake Leota

Dear Dan:

It was nice to meet with you earlier this week to discuss the City's plans to restore Lake Leota. Before meeting with you I was able to tour Leonard Leota Park, the lake shoreline, and review the dam site. After we met I was able to discuss the lake rehabilitation plans with staff from the Wisconsin Department of Natural Resources (WDNR) (Mike Halstead and Bob Hansis), and obtain additional valuable information about previous studies and WDNR preferences and concerns about the proposed project.

As a result of this preliminary project investigation and our experience with similar lake rehabilitation projects, we have prepared a detailed reply to your request for proposals. The primary challenges with your project include completion by January 31, 2008 and obtaining favorable and timely reviews from regulatory agency staff. To meet this challenge we have assigned four professional engineers, four technicians, and two registered land surveyors to your project. Their commitment to this project during the period from November 1, 2007 until January 31, 2008 ensures your schedule will be met. In addition, we have carefully reviewed the approach to this project to ensure the required tasks are carried out in an efficient and effective order to help reduce your costs and to enable us to meet your schedule.

The results of hiring Vierbicher Associates, Inc. to complete your project will be delivery of a set of plans and specifications, a permit application for the lake rehabilitation project that includes disposal site construction and restoration, roadway repair provisions, lake dredging, and shoreline and streambank stabilization. The lake rehabilitation plans will have regulatory agency and City staff review and support and they will be delivered by the January 31, 2008 deadline.

Should you have questions about our proposal or need to adjust the approach we are using please contact me directly at (608) 393-2101. We look forward to helping you with this project and believe WDNR will permit some dredging in Lake Leota if their general environmental concerns and the reported high cadmium levels in the lake bed material are adequately addressed.

▼ 400 VIKING DRIVE P.O. BOX 379 REEDSBURG, WI 53959 (608) 524-6468 Fax (608) 524-8218

 999 FOURIER DRIVE, SUITE 201 MADISON, WI 53717 (608) 826-0532 Fax (608) 826-0530

126 WEST BLACKHAWK AVENUE
 P.O. BOX 542
 PRAIRIE DU CHIEN, WI 53821-0542
 (608) 326-1051
 Fax (608) 326-1052

www.vierbicher.com 🔻

Sincerely,
VIERBICHER ASSOCIATES INC.

Joseph M. Dorava, PE Project Manager

W:\word\Marketing\Water & Environmental\corres\Cover Letters\Evansville Dredging 10-07.doc

Qualifications to Provide Professional Consulting Services for the

City of Evansville

Prepared For:

Dan Wietecha, City Administrator City of Evansville 31 S. Madison Street Evansville, WI 53536

Prepared By:

Vierbicher Associates, Inc. 999 Fourier Drive, Suite 201 Madison, WI 53717

400 Viking Drive P.O. Box 379 Reedsburg, WI 53959

126 W. Blackhawk Avenue P.O. Box 542 Prairie du Chien, WI 53821

Prepared On:

October 10, 2007

VIERBICHER

A 5 5 0 C 1 A 7 E 5

Committed to Quality Service Since 1976

Table of Contents

| Description | <u>Section</u> |
|-------------------------|----------------|
| Description of Firm | 1 |
| Qualifications | 2 |
| Representative Projects | 3 |
| Project Understanding | 4 |
| Key Personnel | 5 |
| References | 6 |



Description of Firm

Vierbicher Associates, Inc. is a team of professionals committed to providing the highest level of skill and expertise to clients throughout Wisconsin and the Upper Midwest.

Since our start in 1976, our goal has always been to provide our clients with creative, practical consulting services, which will enable them to meet their goals. This philosophy, along with unmatched customer service, has helped us maintain consistent growth in a highly competitive field.

OFFICE LOCATIONS

- Madison
- Reedsburg
- Prairie du Chien

REPRESENTATIVE CLIENTS

Public Clients

- · DeForest, WI
- McGregor, IA
- Marshfield, WI
- Middleton (Town), WI Wisconsin Rapids, WI
- Prairie du Chien, WI
- **Private Clients**
- Lands' End, Inc.
- · Cabela's, Inc.
- Grede Foundries, Inc.
- Walgreens
- Veridian Homes

· Reedsburg, WI

• Stoughton, WI

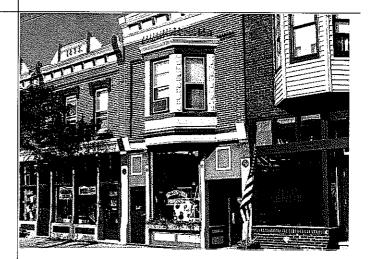
Marathon City, WI

• State of Wisconsin

- T. Wall Properties
- Menard, Inc.
- Spring Valley Holsteins

Tribal Clients

- Stockbridge-Munsee Hannahville Indian Community
- Ho-Chunk Nation
- Menominee Tribal Enterprises









Description of Firm

Oualifications
Recreasement Projects
Project University
Kny Parsonnet
Saferocas

Technical Service Areas

TECHNICAL SERVICES

Vierbicher Associates, Inc. offers technical services in the following areas:

- Municipal/Civil Engineering
- Community Development
- Planning
- Surveying
- GIS
- Water Resources
- Agricultural Engineering
- Environmental
- Building Inspection
- Landscape Architecture

INTEGRATED SERVICES

Vierbicher Associates, Inc.'s multi-disciplined capability and team approach enables us to combine the essential areas of expertise required to successfully complete projects. Having this broad range of in-house experience provides the following benefits to our clients:

- Creative Solutions
- Improved Project Coordination
- Greater Efficiency
- Cost Effective Results



| TECHNICAL EXPERTISE |
|----------------------------------|
| ENGINEERING Available Staff |
| COMMUNITY DEVELOPMENT / PLANNING |
| Available Staff7 |
| Average Years of Service14 |
| LANDSCAPE ARCHITECTURE |
| Available Staff3 |
| Average Years of Service10 |
| Surveying |
| Available Staff11 |
| Average Years of Service24 |
| GIS |
| Available Staff3 |
| Average Years of Service24 |
| WATER RESOURCES / ENVIRONMENTAL |
| Available Staff12 |
| Average Years of Service17 |
| BUILDING INSPECTION |
| Available Staff4 |
| Average Years of Service7 |



Service and Project Types

MUNICIPAL/CIVIL ENGINEERING

- Business and Industrial Parks
- Infrastructure Master Planning
- Recreational Facilities
- Sanitary Sewer Systems
- Site Development
- Stormwater Systems
- Streets and Roadways
- Water Distribution Systems

WATER RESOURCES

- Lake Rehabilitation
- Flood Plain Analysis
- Hydrologic/Hydraulic Modeling
- Non-Point Source Abatement
- Shoreline Stabilization
- Stormwater Management
- Stormwater Master Plan Development
- Stormwater Utility Development
- Water Quality Sampling and Analysis
- Water Quality Modeling
- Wetland Management

WATER SUPPLY/WASTEWATER

- Facility Planning
- Lift Stations
- Wastewater Treatment
- Water Supply Studies
- Water Supply
- Wells and Reservoirs

AGRICULTURAL ENGINEERING

- Analysis of Existing Facilities
- Animal Waste Collection & Holding Facilities
- Comprehensive Nutrient Management Plans
- Construction Inspection & Management
- Facility Planning
- Groundwater Monitor Wells
- Regulatory Agency Permit Applications
- Site Surveys
- Water Runoff & Drainage Control Plans

GEOTECHNICAL

- DOT Certified Lab
- Material Testing
- Sub Surface Investigation



Description of Firm

- Contifications
- . Ropresentative Projects
- 4. Project Understanding
- . Hey Piersonnei
- S Raterance:

PLANNING & COMMUNITY DEVELOPMENT

- Annexation
- Acquisition/Relocation
- Brownfield Redevelopment
- Business/Industrial Recruitment
- Business Planning Services
- Capital Improvement Planning
- Comprehensive Planning
- Downtown Redevelopment
- Economic Development
- Feasibility Studies
- Fiscal Impact Analysis
- Grant Writing/Administration
- Housing
- Market Analysis
- Tax Incremental Financing (TIF)
- Zoning Ordinances

TRANSPORTATION

- Construction Inspection & Management
- Construction Staking
- Right-of-Way Plats
- Transportation Planning
- Urban/Rural Roadway Design

SURVEYING/GIS

- Construction Staking
- Geographic Information Systems (GIS)
- Global Positioning Surveys (GPS)
- Parcel/Utility Mapping
- Property Surveys
- Subdivision Plats
- Topographic Surveys

ENVIRONMENTAL SERVICES

- Environmental Assessments
- Regulatory Compliance
- Remedial Investigations and Design
- Reclamation Plans



Lake Rehabilitation

Vierbicher Associates, Inc. is an industry leader with water resources services that include the full range of activities required to effectively rehabilitate our lakes and reservoirs. We have a unique team of professionals with the expertise to handle all aspects of lake rehabilitation projects. Following is a summary of our experience.

SERVICES

- Engineering
- Planning
- Landscape Architecture
- Environmental
- Surveying

PROJECT TYPES

- Dredging
- Shoreline Restoration
- Sediment Traps
- Lake Rehabilitation Studies
- Grant Applications
- Ordinance Preparation
- Lake District Creation

RECENT REPRESENTATIVE PROJECTS

- Bloomer Lake Dredging
- Reick's Lake Dredging
- Lake Redstone Rehabilitation
- Mirror Lake Rehabilitation
- Rice Reservoir Management Plan
- Lake Nokomis Management Plan



- Boat Launches
- Drainage Control Structures
- Water Quality Monitoring/Modeling
- Aquatic Plant Management
- Dam Failure Analysis
- Dam Design
- Dam Inspections
- Partridge Lake Dam Reconstruction
- Dutch Hollow Dam Repair
- Lake Virginia Dam Repair
- Ormsby Lake Dam Analysis
- Ferryville Boat Launch
- Prairie du Chien Boat Launch

WATER RESOURCES PROJECTS

Qualifications

Representative frejours Project Understooding Say Ramonton References.

Effective water resources management requires the entire watershed be properly evaluated. Vierbicher Associates services include the full range of activities required to effectively manage water resources. We have a unique team of professional planners, engineers, and hydrologist with the expertise to handle all aspects of water resources projects. Following is a list of representative projects we have completed:

| Water Resources Representative Projects | |
|---|---|
| Baraboo River Flood Plain | Clear Lake (Iowa) Storm Water Management Plan |
| Narrows Creek Flood Plain | Ludden Lake Dam Rehabilitation |
| Honey Creek Watershed | Lake Koshkonong Planning |
| Black River Flood Plain | Fairwater Lake Dam Rehabilitation |
| Fountain Creek Flood Plain | Lake Sinnissippi Boat Landing |
| Lake Redstone Rehabilitation | Neenah Lake Storm Water Management Plan |
| Fairwater Dam | Dekorra Lake Storm Water Management Plan |
| Ormsby Dam | Halfway Creek Watershed Study |
| Waushara County Lakes Class. | Nine Springs Storm Water Management Plan |
| Oxford Lake Ordinances | Lake of the Woods Rehabilitation |
| Ottawa Mill Pond Dam | Village of DeForest Storm Water Management Plan |
| Mirror Lake | City of Mauston Storm Water Management Plan |
| Oxford Lake Rehabilitation | Larsmont Area Drainage Study |
| Dutch Hollow Lake | Auroraville Mill Pond Rehabilitation |
| Lake Nokomis | Prairie du Chien Storm Water Utility |
| Lake Puckaway | Partridge Lake Dam Rehabilitation |
| Price County Lakes Classification | Prairie du Chien Storm Water Management Plan |

LAKE DREDGING PROJECTS

Vierbicher Associates, Inc. has completed numerous lake dredging (rehabilitation) projects. Each of these lake projects included detailed engineering, economic, and environmental analyses. Meeting the needs of our clients on these projects required us to provide the regulatory agencies with specific plans to protect the environment while keeping the project economically feasible. This experience with other lake rehabilitation projects has prepared us well to effectively and efficiently complete your proposed project on Lake Leota.



CLIENT:

CITY OF BLOOMER

Project Description:

The City of Bloomer needed to deepen Lake Como to improve water quality. In addition, while the lake was drained the City wanted to expand their swimming beach, replace their boat launch, and repair damaged storm sewer outfalls.

The Challenge:

- Understanding and meeting the numerous regulatory requirements associated with a lake rehabilitation project.
- Completing all the improvements before water could be impounded behind the City's dam which creates Lake Como.

Strategy:

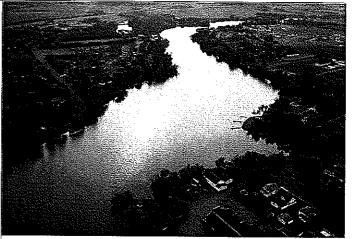
The City hired Vierbicher Associates because of qualifications and experience with complex water resource projects and regulatory management.

Results:

The project proceeded to completion without delay and remained in a set schedule and a fixed budget, despite issues that came up during the project. The issues that were effectively managed included:

- The need to continuously alter lake dredging depths and locations.
- Having to mitigate private citizens concerns about changes to their shoreline.

After removing 300,000 cubic yards of dredged material from the lake bed during one winter of construction, the lake was filled. The following spring an improved swimming beach and new boat launch opened. Today the lake is a regional resource for recreation, fishing and swimming.









Rieck's Lake Dredging

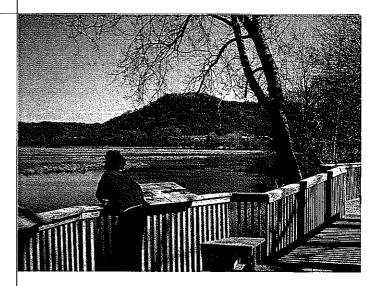
CLIENT:

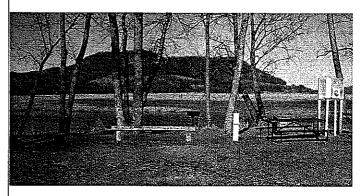
BUFFALO COUNTY, WI

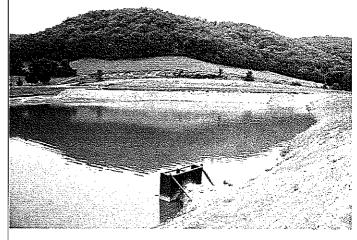
Dredging of Rieck's Lake included the removal of approximately 40,000 cubic yards of foreign material from the bottom of the lake to create Tundra Swan Habitat. Removal was completed using a swinging ladder suction dredge, and pumping the dredged material to a spoil site built about 5,500 feet away from the lake.

Vierbicher Associates Inc. and JF Brennan teamed together to complete this lake restoration project for Buffalo County in 2005. The project was completed within the County's pre-established budget and schedule.

Engineering tasks included the design and construction of an approved 250 site campground, permitting the project with all regulatory agencies, construction of the spoil contaminant site, dredging of the lake and restoration of the disturbed areas.









Lake Redstone Rehabilitation Program

CLIENT:

LAKE REDSTONE PROTECTION DISTRICT

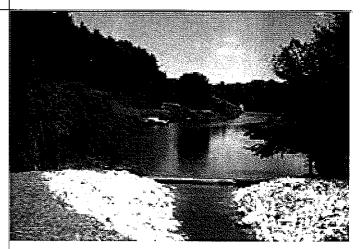
Lake Redstone is a 640-acre man-made lake in northwestern Sauk County, Wisconsin. The lake has a fully developed shoreline and the watershed is predominately agricultural land. The lake was experiencing significant inflow of sediment and nutrients which was degrading water quality.

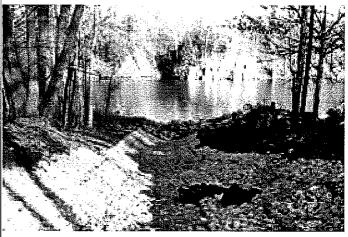
Vierbicher Associates, Inc. provided complete engineering services from initial project planning through design, regulatory agency approvals and construction for a comprehensive lake rehabilitation project that included dredging more than 50,000 cubic yards of material from the lake bed.

Specific activities included:

- Lake rehabilitation study
- Nonpoint source pollution abatement plan
- Priority watershed designation
- Grant application
- Drainage control structures
- Stream flood profile analysis
- Stream stabilization structures
- Sediment basins
- Shoreline stabilization
- Lake dredging
- Storm water detention basins
- Wetland development
- Water quality monitoring program

Since the implementation of the comprehensive lake management, the Lake Redstone Protection District has completed many projects in the watershed and within the lake. This effort has greatly reduced the inflow of sediment and nutrients which has resulted in an improvement of the water quality.









CLIENT:

MIRROR LAKE—LAKE ASSOCIATION

Mirror Lake is Wisconsin's oldest man-made lake and one of the most beautiful. The dam was originally built in 1857. Steep sandstone bluffs, up to 50 feet in height encircle the lake. In 1966, the Mirror Lake State Park opened. It currently includes over 2,000 acres and over 70 percent of the lake shoreline.

Over the years, the water quality of Mirror Lake has declined due to the excessive inflow of sediment and nutrients. From Dell Creek alone, the annual inflow of sediment into Mirror Lake is estimated to be 4,285 cubic yards. This is equal to roughly 285 dump trucks of sediment per year. Dell Creek, Mirror Lake's largest watershed, was designated a Priority Watershed in 1995.

Vierbicher Associates has worked with Mirror Lake since 1999 to plan and implement a lake rehabilitation program. This on-going program has included the following activities:

- Lake Improvement Plan
- Sediment Trap Feasibility Study
- Lake Management Grants
- Creation of a Lake Protection District
- Sediment Trap Design and Permitting
- Navigational Dredging Design and Permitting

The construction of the sediment trap and navigational dredging is planned for 2007 and 2008. The sediment trap is estimated to trap 70% of the 4,285 cubic yards of sediment entering the lake from Dell Creek each year.









References

Project Understanding

This project will require the development of an engineering plan that can obtain regulatory agency approval and stay economically feasible. The project includes removing accumulated material from a 26-acre, drained lake bed in the City of Evansville. Developing the plan will draw upon the engineering firm's experience with similar projects and their ability to satisfy the concerns of environmentally sensitive regulatory agency reviewers, while keeping the project costs reasonable.

Since the lake has been drained since 2005, the approach to restoring the lake depth will be easier. For example, a detailed survey for the existing lake bed can be accomplished with simple ground-based topographic surveying technologies. In addition, detailed soil sampling can be accomplished with standard all terrain equipment. This will allow for more accurate determination of the volume of lake bed material ready for removal and determination if any contaminants are present in the lake bed material and whether they should be removed or are to be left behind.

After the quantity and quality of lake bed material is known, a suitable spoil site must be found to properly dispose of the removed material. Since project costs will be closely related to the distance to a suitable disposal site, nearby sites will be investigated first. Potential disposal site might include the existing park lands at Leonard Leota Park; private, undeveloped lands to the north; and close, vacant farm sites. We understand private developers, such as Berg Realty, have a possible disposal site for uncontaminated lake bed material.

The project costs will also reflect the cost to repair damaged roads in the park and highway system that might be negatively effected by lake bed material transport. A suitable disposal site must not be in a wetland, floodplain, or have a shallow ground water table. In addition, a disposal site must be large enough to hold the removed lake bed material.

Our evaluation of these alternative sites (park, north, farm) for disposal of material will consider costs, suitability, and availability. Each disposal site's location will determine the work period and cost necessary to complete the lake depth restoration and site restoration. The next step will be to review the project plans and construction cost estimates with the City of Evansville and select a preferred alternative. Then review the preferred lake rehabilitation plan with the regulatory agency staff to determine their primary concerns.

After reviewing the regulatory agency concerns with the City, we will prepare a permit application for the project and the City will submit it for agency review. At the same time we will provide the City with a set of plans, final cost estimate, and construction schedule.



SCOPE AND SERVICES

I.

Description of Firm

Qualifications

Representative Projects

4. Project Understanding

Key Personnei

. Rey Personn . References

A. Scope of Project

- 1. Collect existing data about Lake Leota including details about its history, its draining, the adjacent land ownership, any previous dam inspection reports, the relevant activities of Save Our Lake Environment (SOLE), and the involvement of the Wisconsin Department of Natural Resources and other regulatory agencies on the lake.
- 2. Survey the drained lake bed's topography and determine where soil borings and lake bed material samples will be collected.
- 3. Estimate the volume of lake bed material to be removed from the lake bed.
- 4. Review the lake bed material sampling strategy with WDNR staff and then collect lake bed material samples from depths that can define the contaminant concentrations in materials to be removed from the lake bed and in parent materials that will remain as the new lake bed. We understand high cadmium levels indicated in previous lake bed material testing must be verified and addressed in the lake rehabilitation plans. Bob Hansis and Mike Halsted of WNDR indicate a dredging plan that distributes shallow and deep areas in the lake and reflects low concentrations of cadmium in the final soil/water interface would be preferred.
- 5. Review alternative sites for disposal of the lake bed material. This review will be limited to three or four sites that are relatively close to the lake, have suitable environmental characteristics, and are large enough to accommodate the volume of material removed from the lake.
- 6. Develop preliminary plans and specifications for a lake rehabilitation (dredging) project that includes a recommendation for the preferred method for removal of lake bed material and construction and restoration of a suitable disposal site for the lake bed material.
- 7. Estimate total costs for removal of the lake bed material, construction and restoration of a disposal site, repair of roadways and stabilization of the lake and stream banks.
- 8. Review the preliminary plans and specifications and the total costs for the project with the client. The results of this review will determine the client's preferred method of removal of lake bed material, preferred site for disposal of lake bed material, and preferred extend of lake and stream bank stabilization.
- 9. Revise the plans and project costs estimate once to reflect client preferences.
- 10. Review the project plans with staff from the WDNR and County to determine if they have any serious concerns that would prevent the proposed project from moving forward as proposed.



Fegresentative Projects

Project Understanding

Rey Personnei

A 5 5 0 C | A T E S Committed to Quality Service Since 1976

- 11. Review regulatory agency concerns with the client and determine if the plans need to be revised substantially to obtain a permit.
- 12. With the client's concurrence, prepare final plans and specifications and prepare a permit application for the proposed project.
- 13. Provide a copy of the plans, specifications and the permit application to the client to approve and submit to the appropriate regulatory agencies for review.
- 14. Answer questions from regulatory agency staff to help clarify their concerns with the project's final design.

B. Task Schedule, Hours and Fees

- 1. Collecting background information will be done by both professional staff and technicians. They will retrieve appropriate data from City, WDNR, and SOLE files and then interview individuals knowledgeable about the lake. This task will require 20-40 hours to complete during the first 2 to 4 weeks of the project and it will require trips to Evansville, Madison, and Janesville. The fee for this task will be \$3,000.
- 2. Surveying the lake bed will require about 8 -10 hours to plan and prepare for and about two days for a two-man survey team to complete. The survey work will be done soon after the initial background data collection is finished, while the lake bed is frozen but snow depth is minimal. This task will have a fee of \$3,600.
- 3. Estimating the volume of material to be removed from the lake will require detailed geometric analysis of the topographic data collected during the lake bed survey. This task will require about 8 hours of technician time and 4 hours of professional engineering effort and have a fee of \$1,250.
- The scope of work for this task will reflect the volume of lake bed material estimated in task 3 4. and will include careful coordination with WDNR regulatory agency staff to define the acceptable number and location of lake bed material samples. Upon WDNR staff concurrence, the City will pay directly to an acceptable soil consultant for mechanical soil borings, collection and laboratory analysis of lake bed samples from the locations required by WDNR. For this project lake bed material samples will likely include material from the lake bed surface to a depth of about 15 feet. A second sample will be from 15 feet to 20 feet indicating the parent material to be left in the lake after dredging to a depth of fifteen feet is completed. Lake bed material sampling must be collected using protocols described in the WDNR Sediment Sampling Guidelines 1998 and using generally accepted practices and procedures for handling sediment samples for chemical analysis. Contaminant analysis must be completed to reflect requirements typical of a rural inland lake as defined in WDNR NR347. The fee for this task will be \$1500. This fee only includes coordination with WDNR and the soil consultant and laboratory hired directly by the City. It does not include any soil sampling or analysis. We understand WDNR has concern with high cadmium levels in the lake bed material and prefer that all the contaminants are removed. Detailed testing of the lake may require additional soil sampling and analysis or additional borings to define the depth of accumulated material that will be totally removed.

Representative Projects

Project Understanding

- 5. Evaluating alternative sites for disposal of lake bed material will require **Key Parsonnal** use of topographic, soils, wetland and flood plain maps, air photos, land References ownership records, and roadway design data. There will be numerous staff involved in the analysis including engineering technicians, GIS technicians, soil scientists, environmental experts and professional hydrologists. The suitability of a disposal site and its location relative to the lake will have the greatest effect of project costs, so its investigation will need to be quite thorough. This task will require about 60-80 hours to complete and it will be initiated soon after the project begins, but it can not be finished until the volume of material to be removed from the lake is known. The fee for this task will be \$7,200.
- 6. Developing preliminary plans and specifications for the lake rehabilitation (dredging) project will require 40 to 60 hours of technician time and 10-20 hours of professional engineering design. This task will be done in conjunction with the volume estimates but will need to have specific disposal site data to be finished. Therefore this task will take place over several weeks and will be finished within about two weeks of the disposal site selection. The task will have a fee of \$7,500.
- 7. After the alternative sites are selected for disposal of lake bed material and preliminary plans are completed an estimate of the total costs to complete the project will be made. The project costs will include dredging the lake, constructing a disposal site, and restoring the lake bed. roadways, and the disposal site. This task will require about 16 hours of technician time and 4-6 hours for an engineer, which will result in a fee of \$2,200.
- Tasks 8 to 11 are basically reviewing the preliminary plans with the client and regulatory 8. agency staff and performing minor revisions. This task will take about two to three weeks to complete based on reviewer schedules. This task will require close coordination with the client and agency staff and take about 20-30 hours to complete. The task will have a fee of \$2,750.
- 9. Preparing final plans and specifications will require 10-20 hours to complete and will be done as soon as agency and client reviews are completed. The task will have a fee of \$2,000.
- 10. Provide the client with a complete set of plans and specifications, an application for Federal, State and County permits for dredging Lake Leota, and disposing of the lake bed material. This task will also include answering regulatory agency reviewer questions about the project and it will require about 80-100 hours to complete. The task includes completing an environmental assessment permit form, a Chapter 30 dredging form and a storm water discharge NOI form. There may also be an application required by the County for shoreland zoning and for hauling heavy material on a County Highway. These possible additional permit forms will be completed on a time and expense basis if required. The items included in this task will have a fee of \$10,000 to complete.



- L Description of Fina
- Qualifications
- Representative Prejecte
- 4. Project Understanding
 - Key Personnel
- l. References

Key Personnel

Joseph M. Dorava, PE

Project Manager

Joe Dorava, PE, will serve as Project Manager. His responsibilities will include data evaluation, project coordination, scheduling, budget control, and client communication. Joe will serve as an expert resource to the project. He will assist in the coordination of bringing additional expert resources to bear on the project and will oversee and maintain quality control over all scientific analysis and findings related to the project. Joe will also be responsible for evaluations of proposed lake characteristic data, summarizing the data, and writing the permit applications for the project.

Joe has more than 20 years of water resources engineering experience including recent work on four similar lake district management projects and extensive evaluation of water quantity and quality data. Some of Joe's relevant project experience includes:

- Lake Como Rehabilitation
- Reick's Lake Restoration
- Mirror Lake Dredging Feasibility Study
- Lake Redstone Rehabilitation

Gary A. Blazek, PE

Project Engineer

Gary Blazek will serve as Project Civil Engineer. He will be responsible for site evaluation, site design and site development cost estimates.

Gary has 20 years of civil engineering experience, including significant experience with similar lake restoration projects. Gary is familiar with all aspects of lake restoration design, including regulatory agency permits and spoil site construction.

Jon S. Radloff, PE

Project Engineer

Jon will provide engineering design for the project. He has experience with engineering design on similar projects and he has 11 years of experience with water resources engineering.

VIERBICHER

Committed to Quality Service Since 1976

CITY OF EVANSVILLE

VIERBICHER ASSOCIATES, INC.

Joseph M. Dorava, PE Project Manager

Gary A. Blazek, PE Project Engineer

Jon Radloff, PE Project Engineer

William N. Biesmann, PE Project Engineer

Chapin S. Storrar, EIT Engineering Technician

Adam Paul Engineering Technician

Phil Gaebler *Engineering Technician*

Eric J. Brey GIS Technician

Jeffrey R. Quamme, RLS Project Surveyor

Mark T. Krizan, RLS Project Surveyor

William N. Biesmann, PE

Project Engineer

Description of Firm

Qualifications

Representative Projects

. Project Understanding

5. Key Personnel

Bill's project responsibilities will include lake restoration design as it related to sediment quantities to be removed from the lake. Bill has more than 20 years of professional engineering experience.

Chapin S. Storrar, EIT

Engineering Technician

Chapin will serve as Project Engineer Technician. He will prepare the geometry drawings and prepare cost estimates for construction of a spoil site. Chapin has three years of experience with similar projects and has experience with engineering design and CAD services on many private and municipal projects.

Adam Paul

Engineering Technician

Adam will provide Engineering Technician services on this project including evaluation of distances to various disposal sites and he will estimate the cost to repair roads along each route.

Phil Gaebler

Engineering Technician

Phil will provide Engineering Technician services on this project including assisting with sediment volume estimates and total construction cost estimates.

Eric J. Brey

GIS Technician

Eric will provide GIS Technician services on this project. Specific duties will include determining area of road surface impacted by the project, the area of land necessary for sediment disposal, and the area of the lake to be dredged. Eric has seven years of experience as a GIS Technician.

Jeffrey R. Quamme, RLS

Surveyor

Jeff has 22 years of experience and provides surveying/designer services and project management for similar types of projects. He also manages and assists projects that require engineering surveying services for land use easements which might be required for this project..

Mark Krizan, RLS

Surveyor

Mark Krizan, RLS will serve as Project Surveyor. He will assist with field surveys for topographic information, horizontal and vertical control and researching right-of-way and property ownership information for the project.

Mark has 22 years experience in various aspects of surveying. His experience includes property surveys, subdivision plats, horizontal and vertical control surveys, topographic surveys and construction surveys.



5. Key Personne

Joseph M. Dorava, PE

Project Manager

EDUCATION

University of Alaska – Anchorage, Alaska M.S., Environmental Quality Engineering (1993)

University of Wisconsin – Madison, WI B.S., Civil and Environmental Engineering (1988)

North Central Technical Institute – Wausau, WI Associate Degree, Architectural Residential Design (1979)

PROFESSIONAL EXPERIENCE

Vierbicher Associates, Inc. Project Manager (1999) Board of Directors (2002) Group Leader (2003)

U.S. Geological Survey, Water Resources Division Civil Engineer – Wisconsin (1986-1987) Research Hydrologist – Alaska (1988-1999)

REGISTRATIONS, CERTIFICATIONS, TRAINING, AND CONTINUING EDUCATION

Licensed Professional Engineer – Wisconsin (2000), Alaska (1989), Michigan (2001), Iowa (2005)

Certified Wetland Delineator (2001) Professional Hydrologist AIH (2001)

PROFESSIONAL AFFILIATIONS

American Institute of Hydrology American Consulting Engineers Council (ACEC) National Home Builders Association (NHBA)

RESPONSIBILITIES

Provide specialized engineering services when projects require expertise in water resources design, stormwater management, or hydrologic and hydraulic modeling

Manage and direct activities of Vierbicher Associates, Inc. as one of seven elected directors.

PROJECT EXPERIENCE

Developing Comprehensive Stormwater Management Plans for municipalities, large land development projects, and building sites.

Interpreting and complying with local, State, and Federal environmental regulations that control land development projects, the expansion of public structures, and building plans.



Gary Blazek, PE

Project Engineer

EDUCATION

University of Wisconsin – Madison B.S., Civil and Environmental Engineering (1986)

PROFESSIONAL EXPERIENCE

Vierbicher Associates, Inc. Manager, Engineering and Surveying (1998) Board of Director (2002)

Foth and Van Dyke, Inc. Project Manager (1993)

Civiltech Engineering, Inc. Project Engineer (1989)

Midwest Consulting Engineers, Inc. Engineer (1986)

REGISTRATIONS, CERTIFICATIONS, TRAINING, AND CONTINUING EDUCATION

Licensed Professional Engineer – Wisconsin (1994), Illinois (1990), Michigan (2002)
NSPE/PEPP Professional Development
Workshop
Effective Pavement Design Workshop
Pavement Management for Local Roads
Workshop
Urban Hydrology & Detention Pond Design
Workshop
Water Surface Profile Workshop
Storm Water Best Management Practice
Workshop
Leadership 2000 Project Management
Workshop

RESPONSIBILITIES

Manage engineering department and provide engineering services on private, municipal, and state agency projects including water distribution systems, sanitary sewer systems, storm sewer systems, storm water management, earthwork, park and recreation projects, plan reviews, street and highway design and construction administration.

- Prepared construction plans, specifications, contract documents and cost estimates for various municipal, WisDOT and private projects.
- Provided on-site construction inspection and documentation for various municipal projects and private projects.
- Performed construction administration for various municipal projects including preparing bid tabs, reviewing shop drawings, pay requests, change orders, coordination of testing services, and final contract closeout.
- Designed sanitary sewers, water mains and storm sewers.
- Performed stream profile analysis for flood studies.
- Designed storm water detention facilities.
- Performed subdivision and site plan reviews.
- Designed recreational facilities, including parks, bike/walking trails and ice skating/in line skating facilities.
- Designed road reconstruction and resurfacing projects ranging from major highways to small local streets and intersection improvements.
- Developed street inventory programs.
- Developed sanitary sewer and storm water master plans.



Jon Radloff, PE

Project Engineer

EDUCATION

University of Wisconsin - Madison B.S., Civil Engineering (1995)

PROFESSIONAL EXPERIENCE

Vierbicher Associates, Inc. (2004) **Project Engineer**

D'Onofrio Kottke and Associates (2002) Contract Designer/Drafter

Ayres Associates, Inc. Civil Engineer - Water Resources/Land Development (1997)

S.A. Miro, Inc. Design Engineer – Land Development (1996)

REGISTRATIONS, CERTIFICATIONS, TRAINING, AND CONTINUING EDUCATION

Licensed Professional Engineer – Wisconsin (2006)

- Designing Bio/Infiltration Best Management Practices for Stormwater Quality Improvement (2005)
- Meeting New Chapter 30 State Standards: Waterway Permitting Workshop (2005)

RESPONSIBILITIES

Provide engineering design and CAD services related to private and municipal projects. Duties include: storm water runoff, detention basins, storm sewer sizing, designing site grading, erosion control plans, sanitary sewer, and water systems.

Description of Firm

Qualifications

Representative Projects

Project Understanding

Key Personnel

- Management of consulting office
- Sanitary sewer, water main and storm sewer
- Stormwater detention and water quality facility design
- Hydraulic structure design
- Stormwater management report preparation
- Subdivision, site plan and stormwater management review
- Stormwater master planning
- Preparation of construction plans, specifications, contract documents and cost estimates for municipal and private projects
- Construction inspection and administration for municipal and private projects
- River and stream modeling
- Flood studies
- Dam rehabilitation



William N. Biesmann, PE Project Engineer

EDUCATION

University of Wisconsin – Madison B.S., Engineering (1988)

PROFESSIONAL EXPERIENCE

Vierbicher Associates, Inc. Project Manager (2000)

SPACECO, Inc. Assistant Group Manager (1995)

Branecki – Virgilio & Associates Project Engineer (1989)

Fishbeck, Thompson, Carr & Huber – Consulting Engineers
Project Inspector (1988)

Wisconsin Department of Transportation Student Engineer Trainee (1987)

REGISTRATIONS, CERTIFICATIONS, TRAINING, AND CONTINUING EDUCATION

Licensed Professional Engineer – Wisconsin (2000), Illinois (1995)

Using the Source Loading and Management Model (SLAMM) for Storm water Management—UW Extension

Engineering and Planning Approaches/Tools for Low-Impact Development—UW Extension

RESPONSIBILITIES

Provide engineering services on municipal projects including water distribution, sanitary sewers, storm sewers, stormwater management, earthwork, park and recreation projects, plan reviews, street design and construction administration.

- Designed sanitary sewers, water mains and storm sewers.
- Performed stream profile analysis for flood studies.
- Designed storm water detention facilities.
- Performed subdivision and site plan reviews.
- Designed recreational facilities, including parks, and bike/walking trails.
- Designed road reconstruction and resurfacing projects ranging from major highways to small local streets and intersection improvements.
- Developed sanitary sewer and stormwater master plans.
- Prepared construction plans, specifications, contract documents and cost estimates for various municipal and private projects.
- Provided on-site construction inspection and documentation for various municipal projects.
- Performed construction administration for various municipal projects.



Chapin Smith Storrar, EIT

Engineering Technician

EDUCATION

University of Wisconsin – Madison M.S., Civil Engineering (2006)

Montana State University – Bozeman B.S., Civil Engineering (2003)

PROFESSIONAL EXPERIENCE

Vierbicher Associates, Inc. (2006) Project Engineer

University of Wisconsin – Madison (2004) Graduate Research Assistant

U.S. Forest Service (2000-summers) Research Assistant

REGISTRATIONS, CERTIFICATIONS, TRAINING, AND CONTINUING EDUCATION

Designing Naturalistic Open Channels Workshop Member American Society of Civil Engineers

RESPONSIBILITIES

Provide engineering services on private, municipal, and state agency projects including water distribution systems, sanitary sewer systems, storm sewer systems, storm water management, earthwork, park and recreation projects, plan reviews, street and highway design and construction administration.

- Provided storm sewer design using computer modeling.
- Provided stormwater modeling and design for stormwater detention facilities.
- Assisted in the development of private site and residential developments.
- Assisted in the design of public infrastructure improvements.



Eric J. Brey

GIS Technician

EDUCATION

University of Wisconsin - Madison B.S. Cartography/GIS (2001) Emphasis in Surveying, Municipal GIS

Reedsburg Webb High School Graduated With High Honors (1995)

PROFESSIONAL EXPERIENCE

Vierbicher Associates, Inc. GIS Technician (2002)

Vierbicher Associates, Inc. Surveying/GIS Technician - Summer Intern (1995)

Wisconsin State Cartographer's Office Web Site Design and Upkeep (1999-2000)

Qualifications Representative Projects

Description of Firm

Project Understanding

Key Personnel

RESPONSIBILITIES

Cogo input of parcel boundaries for GIS projects. Creation of maps for community development projects. Courthouse research of parcel information for GIS and surveying projects. Development of web site data linkage.

- Developed ArcView Shape File Coverages of Parcels, Water and Sewer Utilities
- Creation And Clean-up of Parcels in AutoCAD Land Development for GIS **Projects**
- Developed Existing and Future Land Use Maps in ArcMap
- Worked Independently on GPS Survey of the City of Reedsburg's Storm Sewer System.
- GPS and Conventional Surveying Field Assistant
- Web Site Development
- Update Parcel Data in ArcInfo

Jeffrey R. Quamme, RLS

Project Surveyor

EDUCATION

Madison Area Technical College Associate Degree, Land Surveying Technology (1983)

PROFESSIONAL EXPERIENCE

Vierbicher Associates, Inc. Project Surveyor/Civil Designer IV (1990)

R.F. Sarko & Associates Land Surveyor/Engineering Technician (1988)

Landmark Survey Group Survey Crew Chief (1987)

R.F. Sarko & Associates Land Surveyor/Engineering Technician (1982)

REGISTRATIONS, CERTIFICATIONS, TRAINING, AND CONTINUING EDUCATION

Wisconsin Registered Land Survey #1922 – Wisconsin Wisconsin Society of Land Surveyors Annual Institute

PROFESSIONAL AFFILIATIONS

Wisconsin Society of Land Surveyors

RESPONSIBILITIES

Provide surveying, planning, and management services for subdivision platting, certified surveys, boundary retracements, section corner remonumentation, topographic mapping, utility mapping, right-of-way surveys, construction surveys, utility staking, parcel planning, aerial photo, control and building stakeouts. Also assist in engineering design for utility, site development, erosion control, earthwork and roadway plans with emphasis utilizing CADD procedures to get projects from field to finish and back to the field.

Description of Firm Qualifications Representative Projects Project Understanding Key Personnel

- Conducted planning, design, and platting services for numerous subdivisions, certified surveys, and condominium plats.
- Wisconsin Department of Transportation section corner remonumentation for highway projects.
- Coordination of surveying and engineering services for developments ranging from apartment complexes to roadway construction.
- Assisted in all phases of residential and commercial developments.
- Control work and cross sectioning for Army Corps of Engineers HECII river modeling.
- Conducted retracement surveys of residential, commercial and industrial properties.
- ALTA surveys of all types of private and public properties.
- Civil design of commercial, municipal, and private sites.



Mark T. Krizan, RLS

Project Surveyor

EDUCATION

Madison Area Technical College Associate Degree, Civil Engineering Technology (1982)

PROFESSIONAL EXPERIENCE

Vierbicher Associates, Inc. Land Surveyor (1997)

Badger Surveying and Mapping Land Surveyor (1996)

Thom R. Grenlie Land Surveyor (1995)

Mead & Hunt, Inc. Land Surveyor (1990)

RMT, Inc. Engineering Technician/Land Surveyor (1988)

Mid-State Associates, Inc. Surveying Crew Chief (1987)

Cedar Corporation Surveying Technician (1982)

REGISTRATIONS, CERTIFICATIONS, TRAINING, AND **CONTINUING EDUCATION**

Licensed Land Surveyor – Wisconsin (1987) Annual Conference of the Wisconsin Society of Land Surveyors 40 Hour Health and Safety Training 40 Hour AutoCAD Training Basic Computer Course and Surveyors Refresher Course

Description of Fine Qualifications

Representative Projects

Project Understanding

Key Personnel

RESPONSIBILITIES

Provide surveying services for projects including subdivision platting, certified surveys, boundary retracements, section corner remonumentation, topographic mapping, utility mapping, right-of-way surveys, construction surveys, utility staking, parcel planning, aerial photo control, and building stakeouts. Also assist in engineering plans for utility, site development, erosion control, earthwork and roadway plans using CADD drafting procedures.

- Conduct platting services for numerous plats and certified surveys.
- Coordinate surveying services for projects involving construction of municipal utilities, highways, airports, buildings, landfills and inspection surveys for dams, paper mills and buildings.
- Assist in all phases of residential developments.
- Conduct retracement surveys of residential. commercial and industrial properties.
- Documentation surveys for remediation, underground tank removal, landfills, river and lake studies and wetland delineation.



Description at Film

Qualifications

Representative Follocia

Project Uniterstanding Kay Personner

References

References

City of Bloomer—Lake Como Randy Summerfield, Mayor (715) 568-3032

Buffalo County-Reick's Lake Julie Fernholtz **Buffalo County Conservationist** (608) 685-6261

Mirror Lake Protection District Waldo Peterson Lake District President (608) 347-1202

